# THE JOURNAL OF
# THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

(Including Transactions)

Volume 36 JULY 1914 Number 7


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C 55. The Society as a body is not responsible for the statements of facts or opinions advanced in papers or discussions.



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## ANNUAL MEETING IN DECEMBER 1914

THE Annual Meeting of the Society will be held in New York December 1–4. The feature of the meeting will be a session extending throughout the day on Thursday, December 3, on the general subject of the Engineer in Public Service, taking up also problems in municipal engineering which are of interest to the mechanical engineer. It is planned to have a session on Aviation, one devoted to Engineering Metals, particularly Steels of Construction and for Tools; Cast Irons; and Alloys of Copper, Tin and Aluminum, etc. The sub-committees on Railroads and Machine Shop Practice are planning for sessions and there will undoubtedly be groups of papers given under the direction of other committees, besides one or two sessions at which miscellaneous papers will be read. *It is urged that all papers for the Annual Meeting be sent to the Secretary not later than September* 1, *and that those who contemplate contributing papers notify the Secretary in advance of this date if possible.*

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# THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

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## THE SPRING MEETING

Those in attendance at the Spring Meeting at St. Paul-Minneapolis expressed great satisfaction at the reception which the Society received and were enthusiastic at the results achieved through the untiring efforts of the Local Committee, Max Toltz, chairman. The entire convention not only afforded much pleasure to the visitors but was of real value to the profession. The meeting comes to a close as this number of The Journal is going to press and the various events will be referred to in a subsequent issue.

The registration started on Tuesday afternoon, June 16, a large party of the members from the East arriving on the special train at 4 o'clock. On Tuesday evening there was a reception and addresses of welcome were delivered by Governor A. O. Eberhardt, representatives of the Chamber of Commerce, and the Mayor of St. Paul, the evening closing with dancing and refreshments.

At the Wednesday morning business meeting the overshadowing event was the discussion upon the subject of Boiler Specifications. A tentative draft of the Committee's recommendations had been printed so that its work might be checked up and revised before the report is submitted for general discussion. There had been a meeting at Chicago on Monday, attended by representatives of the Association of Steel Manufacturers, the Association of Tubular Boiler Manufacturers, and the Boiler Specifications Committee of the Society, at which there was discussion with regard to the steel specifications; this discussion was continued at the opening session on Wednesday morning. The result was a resolution calling for a public hearing to be held in the rooms of the Society in New York on September 15, 1914, to which all interests would be invited and that those desiring to participate in this hearing should submit their criticisms and suggestions in writing prior to August 10. At this session also the revised report of the Flange Committee was received and the Committee discharged with the thanks and appreciation of the Council.

Following the business meeting was a discussion of the papers on Powdered Fuel, which were well received. The subject is a timely one, and besides the written discussion there was a considerable amount of opinion contributed from the floor. The second session in the afternoon was, as would be expected, not so largely attended, although the papers drew out a fair amount of discussion. In the evening the lecture on Ore Handling, by John Hearding, superintendent of the Oliver Iron Mining Company, Duluth, was a great success and was attended by an audience of 300. A number of reels of films were run off by Mr. Hearding and described by him in a most interesting manner. He showed all phases of iron mining work on the Mesaba Range from the rough mining methods in the pit up to the shipping of the ore and its chemical analysis.

On Thursday the visiting members were conducted on special cars to the University of Minnesota buildings, where the concluding professional session was held. Fred B. Snyder, Senator and member of the Board of Regents of the University, made an opening address, and Prof. H. T. Eddy of the faculty also addressed the meeting. The Engineering Developments of the Northwest were treated in the three papers presented, which had been secured by the Local Committee. These brought out some discussion, although the large number of excursions in progress at the same time limited the attendance. A luncheon was given at noon in the Experimental Engineering Building, 250 sitting down to the tables. A resolution of thanks to the Local Committee and to all who had contributed so greatly to the success of the meeting was read at its conclusion.

Immediately after luncheon the members and guests went by special train to the residence of Mr. Gebhard Bohn on Lake Minnetonka, being met at the station by launches and conducted to the Bohn residence. Here an elaborate program, including daylight fireworks, dancing, and entertainment by a cartoonist and other professional performers, had been provided. Much amusement was afforded by caricatures of the

members of the Council present as well as of the local celebrities. Tea was served about 6 o'clock, followed by dancing.

After the close of the convention on Friday, about forty members availed themselves of the splendid invitation extended by the members of the Society in Duluth to visit that city. T. W. Hugo came to the convention personally to urge the members to accept their hospitality. Upon the arrival of the visitors at 7.30 they were taken on a trip around the harbor and on Saturday morning were given an opportunity to view the large ore-handling apparatus of the city.

## COUNCIL NOTES

At the meeting of the Council held in St. Paul on June 16, the report of the Committee on Flanges was received, and at their request the Committee was discharged, and the Council spread upon its minutes its appreciation of the splendid work which has been performed by the Committee, especially its chairman, H. G. Stott.

It was voted to amend By-Law 2 as follows:

Applications for membership from candidates who may be so situated as not to be personally known to the necessary number of members of the Society, as required in Paragraphs 1 and 2, may be recommended by the Membership Committee for ballot, after sufficient evidence has been secured to show that in its opinion the applicant is worthy of admission to membership. Such applicant for membership may refer to officers or voting members of other engineering societies of like standing.

The formation of a Student Branch at Worcester Polytechnic Institute was approved.

Numerous requests were received by the Council from national organizations for opportunity for conference with regard to Boiler Specifications, and a public hearing was ordered for September 15 in the rooms of the Society, when all bodies interested in the development of a boiler code were cordially invited to be present and participate in the preparation of the code.

Several communications received from members of the Society were read in full to the Council, urging that the bound volume of Transactions be issued as usual, because of its being highly prized by the membership, although they have promptly received all the material and more in the monthly issues of The Journal. The Council considered these requests favorably and will communicate with the members of the Society later regarding them. The Council would state that The Journal is self-supporting and under no expense to the Society, and is therefore not subject to discussion, as the members' dues in no way contribute towards it. The continuance of Transactions means that other activities of the Society which the Council had considered of more value to the membership than the duplicate publication in Transactions will, of course, have to be abandoned.

The matter of issuance of advance copies of papers to be read at conventions was discussed, and notwithstanding the fact that out of the entire membership only six requests for advance copies of papers had been received, the Council voted that hereafter a reply postal, or its equivalent, would be mailed to every member of the Society so that there could be no possible opportunity for criticism because of the failure of any member to receive gratis copies of every paper that he actually needs previous to any meeting of the Society.

CALVIN W. RICE, *Secretary.*

## MEETINGS OF THE YEAR

With the close of the spring meeting at St. Paul and Minneapolis and the holding of the last monthly meeting of the season on June 3 in St. Louis, the 1913-1914 season ends for the meetings of the Society. Since the opening of the Society year last October, 54 meetings have been held in 14 different cities, besides the annual and spring meetings in New York and St. Paul-Minneapolis respectively. This is a substantial increase over any previous year, and when it is realized that as recently as 1907 the only local meetings were the six New York meetings occuring during the winter months, it can be seen how much greater is the present opportunity for the membership to get together.

In general the local meetings have been well attended and many papers of extraordinary interest have been presented. Everywhere the spirit of coöperation has been predominant since nearly one-half of all the meetings throughout the country have been joint sessions with other societies. In a number of cases the usual procedure has been varied by some exceptional undertaking as, for instance, at Worcester, an afternoon and evening convention held by the Boston members in coöperation with the local members at Worcester; or at New York, where one of the most important meetings of the year was in connection with the Sub-Committee on Railroads, with a paper on the famous Pennsylvania Railroad air brake tests; or at New Haven, where regularly quarterly conventions are held.

During the past year meetings have been begun at Atlanta, Buffalo, Milwaukee and at St. Paul and Minneapolis. At Atlanta, the membership is small, but the members are working enthusiastically to increase the interest in the Society and one joint meeting with other engineering organizations has been held. At Buffalo and Milwaukee some work of organization had been done previous to the present year when the meetings have at last become a regular feature. At Buffalo there have been four meetings, the first of which was addressed by President Hartness, and at Milwaukee an excellent general organization has been effected known as the Engineers Society of Milwaukee, comprising representatives of five engineering societies with a Board of Managers. Four meetings have taken

place, at one of which there were afternoon and evening sessions. At St. Paul and Minneapolis there have been three meetings held alternately in these two cities under the direction of the Minnesota Committee, besides the special session at the Spring Meeting when papers upon local engineering subjects were given, arranged by the Local Committee.

It is altogether probable that other cities will join the ranks of those holding Society meetings from year to year, emphasizing more and more the national character of the Society and incidentally making an increasing return to the membership as a result of this increasing service to the profession.

## INTERNATIONAL ENGINEERING CONGRESS, 1915

The attention of the engineers of the world is being more and more drawn to the program of the International Engineering Congress which is to be held in San Francisco, California, in 1915. The interest which has been aroused in foreign countries is shown by the fact that at the present time there have been received enrollments and subscriptions from 42 such countries. It is furthermore to be noted that of the present total enrollment, approximately 25 per cent is from countries other than the United States. The number of subscriptions from the members of the five national engineering societies of the United States under whose auspices and control the Congress is being held is, however, not so gratifying. The percentage of the total membership of these five societies represented by the subscription list is only 3.7, and this, although each individual member of these societies has received circular information and data concerning the Congress and has been urged to send in his subscription promptly.

It is probable that this is largely due to the fact that the date of the Congress is still somewhat in the future, and also to the tendency of the individual to procrastinate. This, to a considerable degree, handicaps the work of the Committee on Management, and it is extremely desirable that as many as possible who intend to subscribe should do so at an early date.

The list of topics to be treated in the Section on Mechanical Engineering gives a very good idea of the character of the publications which it is intended to issue and the topics which will be presented and discussed at the meeting. These are as follows:

(1) Recent progress and present status of foundry practice, and casting metals
(2) Recent progress and present status of the art of forging
(3) Equipment processes, and methods for the boiler-shop
(4) Machine-shop equipment, methods, and processes
(5) Automatics
(6) Special processes for shaping and forming metals
(7) High temperature flames in metal-working
(8) Industrial management
(9) Safety engineering
(10) Industrial Museums as an educational factor
(11) The steam-engine of the year 1915
(12) The steam-turbine of the year 1915
(13) The internal-combustion engine of the year 1915
(14) Motors of the Diesel type
(15) The Humphreys gas pump
(16) The steam boiler of the year 1915
(17) Refrigeration
(18) Pneumatics
(19) Lubrication and lubricants
(20) Water wheels of pressure type
(21) Water wheels of impulse type
(22) Hydraulic power developments and use
(23) Power-plant design
(24) Motor vehicles, passenger type
(25) Motor vehicles, utility type
(26) Motor tractors

Many of these topics will be treated as symposiums with contributions representing the practice in more than one country.

The various sections outlined for the work of the Congress and the volumes to be issued are as follows:

| | |
|---|---|
| Vol. I | The Panama Canal |
| Vol. II | Waterways and Irrigation |
| Vol. III | Municipal Engineering |
| Vol. IV | Railways and Railway Engineering |
| Vol. V | Materials of Engineering Construction |
| Vol. VI | Mechanical Engineering |
| Vol. VII | Electrical and Mechanical Engineering |
| Vol. VIII | Mining Engineering and Metallurgy |
| Vol. IX | Naval Architecture and Marine Engineering |
| Vol. X | Military Engineering, and Miscellaneous |

It will be noted that the proceedings of the Section on Mechanical Engineering will be published in Vol. VI, with some of the papers falling into Vol. VII. It is also noted that Vol. X will consist only in part of Military Engineering and will also contain papers on miscellaneous topics which are not definitely associated with any of the various sections.

Full information concerning the Congress may be obtained by addressing the Committee of Management as follows:

INTERNATIONAL ENGINEERING CONGRESS, 1915,
Foxcroft Building, San Francisco, Cal.

## APPLICATIONS FOR MEMBERSHIP

Members are requested to scrutinize with the utmost care the following list of candidates who have filed applications for membership in the Society. These are sub-divided according to the grades for which their age would qualify them and not with regard to professional qualifications, i.e., the age of those under the first heading would place them under either Member, Associate or Associate-Member, those in the next class under Associate-Member or Junior, while those in the third class are qualified for Junior grade only. The Membership Committee, and in turn the Council, urge